Notice of Allowability	Application No.	Applicant(s)	
	09/337,500	YAMAGUCHI, TOMOHISA	
	Examiner	Art Unit	
	Thu Ha T. Nguyen	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *amendment filed June 15, 2006*.

2. ☒ The allowed claim(s) is/are *1-5,8-16,18 and 20*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *attached herein* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Thuchanguyen
Patent Examiner

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Applicants' Representative, Mr. Richard Anderson (Reg. No. 40,439), on August 15, 2006 .

3. The application has been amended as follow:

In the claims:

4. Claims 1-4, 8-9, 11-16, and 18 are amended as following:

Claim 1. (Currently Amended)

A system of dynamic module configuration which is linked through a network comprising:

a memory, linked to the network, for storing a plurality of function executing modules which execute specific processes;

a request device, located on said network remotely from said memory, which outputs an execution request for executing one of the specific processes; and

an execution device, integrated within one of a plurality of different device apparatuses which are located on said network remotely from said memory and said request device, for receiving, through the network, the execution request output from the request device, acquiring, through the network, one of the plurality of function

executing modules which has a function of realizing the execution request from the memory, executing the acquired function ~~execution~~ executing module and providing a result of execution of the acquired function ~~execution~~ executing module to the request device,

wherein each execution request has one corresponding function ~~execution~~ executing module stored in the memory that relates to the execution request for the device apparatus, the function ~~execution~~ executing module being installed in the execution device upon acquiring from the memory and uninstalled from the execution device upon ~~the~~ finishing execution of the function ~~execution~~ executing module,

wherein the request device is a client which outputs a contents request corresponding to the execution request, the execution device is a server which receives the contents request and responds to the contents request, and the memory is a module storing server which stores the plurality of function executing modules for responding to the contents request,

wherein the server includes

a contents-request receiving module for receiving the contents request from the client,

a contents-request analyzing module for analyzing the contents request received by the contents-request receiving module in order to select one of the plurality of function executing modules which has a function needed in responding to the contents request,

a module request module for requesting a selected function executing module from the module storing server based on an analyzing result by the contents-request analyzing module, and for receiving the selected function executing module from the module storing server, and

a module executing module for executing the selected function executing module received by the module requesting module.

Claim 2. (Currently amended)

The system of dynamic module configuration of claim 1, wherein the execution device deletes the acquired function ~~execution~~ executing module after the acquired function ~~execution~~ executing module has been executed.

Claim 3. (Currently amended)

The system of dynamic module configuration of claim 1, wherein the execution device stores the acquired function ~~execution~~ executing module after the acquired function ~~execution~~ executing module has been executed, and re-executes the acquired function ~~execution~~ executing module stored in the execution device when it is requested to execute a module having a function corresponding to the acquired function ~~execution~~ executing module.

Claim 4. (Currently amended)

The system of dynamic module configuration of claim 1, wherein the memory caches the function ~~execution~~ executing module acquired by the execution device and provides the function ~~execution~~ executing module cached in the memory when it is requested to acquire a module, which has a function corresponding to the function ~~execution~~ executing module cached in the memory, by the execution module.

Claim 6. (Canceled)

Claim 7. (Canceled)

Claim 8. (Currently Amended)

The system of dynamic module configuration of claim 1 ~~7~~, wherein the module storing server includes

a module-request receiving module for receiving a module request from the module requesting module,

a module acquiring module for acquiring a function executing module out of the plurality of the plurality of function executing modules based module request received by the module request receiving module, and

a module transmitting module for transmitting the function executing module acquired by the module acquiring module to the server.

Claim 9. (Currently amended)

The system of dynamic module configuration of claim 1 ~~7~~, wherein the server further includes a module storing module for storing the selected function executing module acquired from the module storing server as many as possible in a resource of the server.

Claim 11. (Currently Amended)

A dynamic module configuration method using a network comprising the steps of:

storing in a memory a plurality of function executing modules for executing specific processes;

outputting, by a request device through the network, an execution request for executing one of the specific processes; and

receiving, by an execution device integrated within one of a plurality of different device apparatuses, located on said network remotely from said memory and said request device, the execution request through the network, acquiring, through the network, one of the plurality of function executing modules from the memory which has a function of realizing the execution request, executing the acquired function ~~execution~~ executing module and providing a result of execution of the acquired function ~~execution~~ executing module to the request device,

wherein each execution request has one corresponding function ~~execution~~ executing module stored in the memory that relates to the execution request for the device apparatus, the function ~~execution~~ executing module being installed in the

execution device upon acquiring from the memory and uninstalled from the execution device upon ~~the~~ finishing execution of the function ~~execution~~ executing module,

wherein the request device is a client which outputs a contents request corresponding to the execution request, the execution device is a server which receives the contents request and responds to the contents request, and the memory is a module storing server which stores the plurality of function executing modules for responding to the contents request,

wherein the server includes

a contents-request receiving module for receiving the contents request from the client,

a contents-request analyzing module for analyzing the contents request received by the contents-request receiving module in order to select one of the plurality of function executing modules which has a function needed in responding to the contents request,

a module request module for requesting a selected function executing module from the module storing server based on an analyzing result by the contents-request analyzing module, and for receiving the selected function executing module from the module storing server, and

a module executing module for executing the selected function executing module received by the module requesting module.

Claim 12. (Currently amended)

The dynamic module configuration method of claim 11, wherein the step of executing the acquired function ~~execution~~ executing module includes the step of deleting the acquired function ~~execution~~ executing module after the acquired function ~~execution~~ executing module has been executed.

Claim 13. (Currently amended)

The dynamic module configuration method of claim 11, wherein the step of executing the acquired function executing module includes the step of storing the acquired function ~~execution~~ executing module after the acquired function ~~execution~~ executing module has been executed, and re-executing the acquired function ~~execution~~ executing module when it is requested to execute a module having a function corresponding to the acquired function ~~execution~~ executing module.

Claim 14. (Currently amended)

The dynamic module configuration method of claim 11, wherein the step of memorizing the plurality of function executing modules includes the step of caching the acquired function ~~execution~~ executing module, and providing the acquired function ~~execution~~ executing module cached at the caching step when it is requested to acquire a module having a function corresponding to the acquired function ~~execution~~ executing module.

Claim 15. (Currently Amended)

A system of dynamic module configuration comprising:

an internal resource of a device for performing an original function of the device; and

an execution device, integrated within the device, for receiving an execution request, through a network from a request device, which requests a performance of a function of the device,

acquiring, from an external resource, one of a plurality of function ~~execution~~ executing modules which has a function of realizing the execution request, and

executing the acquired function ~~execution~~ executing module,

wherein the receiving, acquiring and executing are performed by using a part of the internal resource and wherein an executed result is obtained from executing the acquired function ~~execution~~ executing module and the executed result is provided to the device,

wherein each execution request has one corresponding function ~~execution~~ executing module stored in a memory that relates to the execution request for the device, the function ~~execution~~ executing module being installed in the execution device upon acquiring from the memory and uninstalled from the execution device upon ~~the~~ finishing execution of the function ~~execution~~ executing module; and

wherein the external resource is located remotely on said network from said execution device,

wherein the request device is a client which outputs a contents request corresponding to the execution request, the execution device is a server which receives

the contents request and responds to the contents request, and the memory is a module storing server which stores the plurality of function executing modules for responding to the contents request,

wherein the server includes

a contents-request receiving module for receiving the contents request from the client,

a contents-request analyzing module for analyzing the contents request received by the contents-request receiving module in order to select one of the plurality of function executing modules which has a function needed in responding to the contents request,

a module request module for requesting a selected function executing module from the module storing server based on an analyzing result by the contents-request analyzing module, and for receiving the selected function executing module from the module storing server, and

a module executing module for executing the selected function executing module received by the module requesting module.

Claim 16. (Currently amended)

The system of dynamic module configuration of claim 15, wherein the internal resource includes a central processing unit and a memory, the execution device includes a program stored in the memory and executed by the central processing unit,

and the external resource includes a memory, being independent of the device, for memorizing the plurality of function ~~execution~~ executing modules.

Claim 17. (Cancelled)

Claim 18. (Currently Amended)

A method of providing execution module instructions to plural operational devices on a network, comprising the steps of:

storing plural diverse execution modules in a memory located remotely on said network from said operational devices, each of said plural diverse execution modules containing a set of instructions uniquely usable by an operational device;

requesting an action by a request device to be performed by a selected operational device which is achieved through a set of instructions contained in a requested execution module;

acquiring said requested execution module by an execution device integrated within said selected operational device from said remote memory, said selected operational device executing said set of instructions contained in said requested execution module to perform the requested action;

wherein each requested action has one corresponding execution module related to the requested action for ~~the~~ said selected operational device, the execution module being installed in the execution device of ~~the~~ said selected operational device upon

being acquired and uninstalled ~~form~~ from the execution device upon ~~the~~ finishing execution of the set of instructions contained in the requested execution module; and

wherein the request device is remotely located on the network from said plural operational devices and said memory,

wherein the request device is a client which outputs a contents request corresponding to the requested action, the execution device is a server which receives the contents request and responds to the contents request, and the memory is a module storing server which stores said plural diverse execution modules for responding to the contents request,

wherein the server includes

a contents-request receiving module for receiving the contents request from the client,

a contents-request analyzing module for analyzing the contents request received by the contents-request receiving module in order to select one of said plural diverse execution modules which has a function needed in responding to the contents request,

a module request module for requesting a selected diverse execution module from the module storing server based on an analyzing result by the contents-request analyzing module, and for receiving the selected diverse execution module from the module storing server, and

a module executing module for executing the selected diverse execution module received by the module requesting module.

Claim 19. (Cancelled)

Reasons for Allowance

5. Claims 1-5, 8-16, 18 and 20 are allowed.

6. Claims 6-7, 17 and 19 are cancelled and withdraw without prejudice.

7. The following is an examiner's statement of reasons for allowance:

The examiner has found that the prior art of record does no appear to teach or suggest or render obvious the claimed limitations in combination with the specific added limitations as recited in independent claims 1, 11, 15, and 18 and subsequent dependent claims. The prior art of record fails to teach or suggest a method and system of dynamic module configuration comprising: a memory for storing a plurality of function executing modules which execute specific processes; a request device outputs an execution request for executing one of the specific processes; and an execution device, integrated within one of a plurality of different device apparatuses, for receiving, the execution request output from the request device, acquiring, one of the plurality of function executing modules which has a function of realizing the execution request from the memory, and executing the acquired function executing module and providing a result of execution of the function executing module to the request device, wherein each execution request has one corresponding function executing module stored in the memory that relates to the execution request for the device apparatus, the function executing module being installed in the execution device upon acquiring from the

memory and uninstalled from the execution device upon finishing execution of the function executing module. The prior art also fails to teach the execution device is a server which receives the contents request and responds to the contents request, and the memory is a module storing server which stores the plurality of function executing modules for responding to the contents request, wherein the server further includes a contents-request receiving module for receiving the contents request from the client, a contents-request analyzing module for analyzing the contents request received by the contents-request receiving module in order to select one or the plurality of function executing modules which has a function needed in responding to the contents request, a module request module for requesting a selected function executing module from the module storing server based on an analyzing result by the contents-request analyzing module, and for receiving the selected function executing module from the module storing server, and a module executing module for executing the selected function executing module received by the module requesting module [see remark dated June 15, 2006 and specification page 6, line 2-page 7, line 20, page 9, line 1-page 10, line 19].

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Ha Nguyen, whose telephone number is (703) 305-7447. The examiner can normally be reached Monday through Friday from 8:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Najjar Saleh, can be reached at (571) 272-4006.

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thuhanguyen

ThuHa Nguyen

Patent Examiner
September 2, 2006